

Ethylene Oxide Usage and Emissions

Sterigenics	Location
Emission Controls:	Queensbury
Sterilizer	Ceillcote Scrubber
Aerations Rooms	Abator
Back Vents	Abator

Usage and Emissions:	2019	2018	2017	2016	2015
EtO Usage (lbs)	378,318	351,823	341,214	355,795	370,457
Sterilizer Control Effic. (%)	99.945%	99.945%	99.945%	99.930%	99.930%
Aer. Room Control Effic (%)	99.92%	99.97%	99.85%	99.76%	99.850%
Backvent Effic. (%)	99.800%	99.960%	99.920%	99.600%	99.800%
EO Sterilizer Emissions (lbs)	198	184	178	237	246
EO Aeration Emissions (lbs)	11	4	20	34	22
EO Backvent Emissions (lbs)	8	1	3	14	7
EO Fugitive Emissions (lbs)	189.16	176	171	178	185
EO Accidental Releases (lbs):	0.0	0	0	0	0

TOTAL Stack EO Emissions (lbs)	216.73	189.32	201.49	284.99	275.99
TOTAL Fugitive EO Emissions (lbs)	189.16	175.91	170.61	177.90	185.23

EO Sterilizer Emissions (#) = $0.95 * \text{EO Usage} * (1 - \% \text{control efficiency})$

EO Aeration Emissions (#) = $0.04 * \text{EO Usage} * (1 - \% \text{control efficiency})$

EO Backvent Emissions (#) = $0.01 * \text{EO Usage} * (1 - \% \text{control efficiency})$

EO Fugitive Emissions (#) = $0.0005 * \text{EO Usage}$

* Backvent emissions were controlled beginning Nov 2018